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ABSTRACT

A review of the literature on employer-based training (EBT) and case studies of 17 exemplary EBT programs (9 of which were Job Training Partnership Act [JTPA] programs) were used to determine best practices in EBT and make recommendations for effective strategies for implementing EBT programs. Some of these strategies included the following: (1) JTPA programs should be visible to the community; (2) market JTPA training by stressing its benefits, including its effects on the bottom line for companies; (3) provide JTPA training for a consortium of businesses rather than a single business; (4) ask for commitments from companies for JTPA programs; (5) don't overburden companies with paperwork requirements; (6) companies should first plan their EBT programs based on company goals; (7) employee input is essential to a successful program; (8) linkages with outside organizations can provide access to training resources; (9) companies can maximize their EBT programs by making sure employees apply their training knowledge soon after training; (10) companies should consider the pros and cons of providing training in-house or at another locale; (10) stretch the training budget by shifting some costs to employees; and (11) evaluate the training program and make adjustments as needed. (Contains 45 references.) (KC)

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Involving Employers in Training: Best Practices

Research and Evaluation Report Series 97-I

U.S. Department of Labor
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1997

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BACKGROUND ON THE REPORT AND ITS PREPARATION

This report was prepared in support of the U.S. Department of Labor's (DOL) efforts to disseminate information about effective strategies and practices for training and retraining the American workforce. This report synthesizes findings from 17 case studies of U.S. companies sponsoring employer-based training (EBT) programs. Nine of these EBT programs were established and operated by firms in partnership with the Job Training Partnership Act (JTPA) system; the other eight were not affiliated with the JTPA program and mostly privately-funded by the companies sponsoring the program. Individual summaries of each of the 17 case studies synthesized in this report appear in a separately bound report available through the U.S. Department of Labor, entitled *Involving Employers in Training: Case Studies*.

The report was prepared under the direction of the Department of Labor's Employment and Training Administration (DOL/ETA), by James Bell Associates, Inc. (JBA). The authors are Kellie Isbell and John W. Trutko (of JBA); Burt S. Barnow (of the Institute for Policy Studies at The Johns Hopkins University); and Demetra Nightengale and Nancy Pindus (of The Urban Institute). The report was prepared under Department of Labor Contract Number F-4965-5-00-80-30 (Task Order #1).

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The Authors

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LIST OF ABBREVIATIONS

AFDC	Aid to Families with Dependent Children
BLS	Bureau of Labor Statistics
DOL	U.S. Department of Labor
ETA	Employment and Training Administration (of the Department of Labor)
JOBS	Job Opportunities and Basic Skills (a job training program for AFDC participants)
JTPA	Job Training Partnership Act
PIC	Private Industry Council
OJT	On-the-Job Training
SDA	Service Delivery Area

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INVOLVING EMPLOYERS IN TRAINING: BEST PRACTICES

I. INTRODUCTION

A. Background

U.S. firms are facing pressures to increase productivity and quality of goods/services to be competitive within an increasingly global economy.

The workplace is changing. Technological advances, globalization, intense competitive pressures within the marketplace, and corporate restructuring have changed the ways in which U.S. firms produce and market their goods and services. For example, within an increasingly complex and international marketplace, there is a growing emphasis within American firms on increasing worker productivity, cutting production costs, and on-time delivery of the highest quality goods and services. Firms are increasingly emphasizing responsive customer service at every level of the organization -- from the factory worker to the company president.

Firms need to invest in their workforce through job-specific and basic skills training to enhance worker productivity.

To both maintain and expand their position within the marketplace, firms are increasingly focusing not only on the types of investments needed for capital equipment and facilities, but also the types of investments in human capital (i.e., their workforce) required to enhance productivity and competitiveness. For example, with the introduction of new computerized technologies and production processes, manufacturing firms are finding it necessary to make investments in job-specific training of management and line personnel (e.g., on how to use new equipment and processes). In some instances, firms have found that as skills and competencies required within the workplace have become more demanding, it is also necessary to address basic skills deficiencies through more generalized training, often before job-specific skills training can be effectively provided.

Firms need to become actively involved in customizing training to the needs of their workforce and product process.

As production processes become more complex and require higher levels of basic and job-related competencies, firms are becoming more actively involved in structuring the types of training their workforce receives. Often the type and amount of training needed to enhance worker productivity are specific to the type of equipment or process used by the employer. Hence, employers are finding that it is essential to first analyze the education and training needs of their

workforce and then to tailor the types of training provided to the specific needs of both workers and the work in which they are involved. Firms need to have a clear voice in the structure of training provided for their workforce so that scarce training resources are not wasted and workers emerge from training with the skills/competencies needed to be fully productive.

Workers -- those new to the workforce and those who have been in the workforce many years -- benefit from training and need to continually upgrade their skills.

In an economy that is in transition, the American worker is also finding that investing in education and job-related skills provides the best opportunity for obtaining and keeping higher paying, long-term jobs. Young people and other first-time job seekers must have the basic education and work-related skills needed to gain a foothold in the job market and, over time, to hold onto and progress to better paying jobs. Those already within the workforce need to continually upgrade their skills to keep up with changes in technology and to advance within their careers. Few workers can expect to stay with a single firm throughout their work life.

The most effective training is that which takes place on the job or in a job-like setting.

As discussed in greater detail below, current research shows that training is most effective when it takes place on the job or in a job-like setting and that the more training is linked to work, the better the result. Training received from an employer is also considerably more likely to be used on the job than is training obtained at a school (Bishop 1994). Basic skills are often easier to learn when they are integrated into a training program that is specific to the context of a particular job (Mikulecky 1989). Employer-provided training may also have more motivated trainees, more effective tutorial learning methods, and more appropriate materials and equipment (Bishop 1994).

B. Study Scope and Methodology

This study assesses the experiences of 17 exemplary EBT programs -- nine involving partnering with JTPA.

While considerable research has been conducted on worker training in recent years, many gaps remain in our knowledge about training, particularly relating to effective methods for structuring training and the returns on investments in training for firms and workers. This study -- funded by the Employment and Training Administration in

the U.S. Department of Labor (DOL) -- assesses 17 exemplary employer-based training (EBT) programs and provides recommendations on effective strategies for implementing EBT programs.

An important focus of this report is on the customization of training programs to meet the needs of both firms and workers. Nine of the EBT programs analyzed involved partnerships between a company and Job Training Partnership Act (JTPA) programs to provide customized training for new hires to the firm. The other eight programs did not collaborate with JTPA on their EBT programs. These eight EBT programs, mostly privately-financed through the company's working capital, were primarily focused on upgrading the skills and competencies of the company's existing workforce.

Study results are based on a review of EBT literature and case studies of 17 exemplary EBT sites.

The study utilized two primary methodologies: a review of the research literature on employer-based training and 17 case studies of selected companies sponsoring exemplary EBT programs. The review of the literature provides a summary of both theoretical and empirical research findings on employer-based training. For example, the literature review assessed various definitions of EBT and theories about why employers invest in training, as well as summarized the extent and characteristics of EBT programs in the United States. While we have provided an overview of some of the salient findings of this literature review in the pages that follow, the complete literature review is available under a separate report, entitled *Involving Employers in Worker Training: Literature Review* (Pindus and Isbell, 1996).

Case studies of firms sponsoring EBT programs are based on site visits to each firm, during which interviews were conducted with company management, supervisors of workers in training, individuals providing instruction (including instructors at vocational training institutions), and workers receiving training. In cases where JTPA partnered with the company, interviews were conducted with relevant agency administrators.

Nominations of companies with exemplary EBT programs were solicited from DOL regional offices, local JTPA Service Delivery Areas, national organizations involved in employment and training issues, and EBT experts around the country. The 17 companies chosen to participate in the study were selected based on a range of criteria, including industry and occupations being trained, characteristics of workers being trained, structure of and types of training being provided, and sources used in financing the training (e.g., JTPA financing versus private financing). Readers should note that the companies selected are examples of employer-based training programs; they are not necessarily the best training programs available. In addition, the sample of those firms chosen was relatively small (17 firms) and was not randomly selected; hence, it is not possible to make statistically valid generalizations to all firms.

Discussions with companies partnering with the JTPA program generally focuses on the portion of their training that is government-funded. These companies may, however, provide additional training for employees. Exhibit 1 provides an overview of the case study companies and their training programs. Case study summaries, containing more detailed information about each company and its training program, may be found in a companion volume entitled *Involving Employers in Training: Case Studies*.

The report is divided into three major sections.

The remainder of this report has been divided into three major sections. The next section provides an overview of relevant research findings from the literature on employer-based training. Following this overview, Section III synthesizes findings across the 17 exemplary sites visited under this study. This section is divided into two parts, focusing on study results for JTPA- and non JTPA-sponsored EBT programs. Section IV of this report summarizes major study findings and provides recommendations concerning strategies for effectively promoting and structuring EBT programs.

EXHIBIT 1: SELECTED CASE STUDY COMPANY CHARACTERISTICS

Company	Location	Industry	Sector	Size of Company*	JTPA Funded	Description of Training Program
C.B. Baird	Milwaukee, WI	Manufacturing	For-profit	M	X	JTPA-funded training in printing, binding, and mounting. Graphics Art Institute provides the training.
The Boeing Company	Seattle, WA	Manufacturing	For-profit	L		The Quality Through Training Program provides tuition reimbursement and training to union employees. Training includes basic skills training in an on-site computer lab and technical skills training.
Elgar Corporation	San Diego, CA	Manufacturing	For-profit	M		Training funded by California's Employment Training Panel Program. Retraining provided for 2/3 of existing workforce to upgrade skills.
Financial Partners	Springfield, MA	Banking	For-profit	M		Training for new and existing bank employees by separate division set up to handle business services and training.
Goodwin House Retirement Community	Falls Church, VA	Health Care	Non-profit	L		English as a Second Language training provided by a local workplace literacy provider (17 languages spoken by employees).
GR Spring and Stamping	Grand Rapids, MI	Manufacturing	For-profit	M		Extensive orientation and on-the-job training for new employees plus mandatory Lifelong Learning seminars every 2 weeks for all employees.
Harrington Hospital	Southbridge, MA	Health Care	Non-profit	M	X	Harrington Hospital trains JTPA participants to be home health care aides through classroom and on-the-job training using hospital staff.

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EXHIBIT 1: SELECTED CASE STUDY COMPANY CHARACTERISTICS

Company	Location	Industry	Sector	Size of Company*	JTPA Funded	Description of Training Program
Lucas Aerospace	Jamestown, ND	Manufacturing	For-profit	M		On-the-job training as well as classroom training provided by in-house experts and contracted out to a local vocational school. Tuition reimbursement program with no annual limits.
NeighborCare Pharmacies	Baltimore, MD	Health care/ retail sales	For-profit	L	X	JTPA-funded training for pharmacy technicians. Training provided by local community college. Training is customized to needs of the employer and focuses on recruiting and training new workers.
Pacific NW Federal Credit Union	Portland, OR	Banking	Non-profit	S	X	JTPA-funded training for member services representatives for a consortium of 5 credit unions in Portland. Trainees are all Older Workers (over 55). Training provided by Goodwill Industries.
Pep Boys Corporation	Los Angeles, CA	Retail sales	For-profit	L	X	JTPA-funded training for cashiers, customer service representatives, and sales representatives. Trainees are hired from local communities in which new Pep Boys stores are opened. The Urban League's Automotive Training Center provides the training.
TempsPlus/ Staffing Solutions	Cleveland, OH	Temporary services	For-profit	M	X	JOBS and JTPA-funded training for PC specialists. Training provided by TempsPlus sister company, JPC Learning Centers.
TMI	Dickinson, ND	Manufacturing	For-profit	M		On-the-job training, cross training, and tuition reimbursement program. Travel for employees to foreign countries and other states to learn new manufacturing techniques.

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EXHIBIT 1: SELECTED CASE STUDY COMPANY CHARACTERISTICS

Company	Location	Industry	Sector	Size of Company*	JTPA Funded	Description of Training Program
Solectron	San Jose, CA	Manufacturing	For-profit	L	X	JTPA-funded training in the field of surface mount/pin-through-hole assembly for electronics manufacturing. The Center for Training and Careers provides the training.
Unisys	Bismarck, ND	Financial services	For-profit	M		Hired all new employees for new business center in Bismarck. Also extensive team building training to institute high performance team-based workplace.
Wisconsin Electrical Power Company	Milwaukee, WI	Utility	Public	L	X	JTPA-funded training for entry-level line mechanics in Milwaukee area. Program intended to increase employee diversity and retention. Milwaukee Area Technical College provides the training.
Yuma Schools Transportation Consortium	Yuma, AZ	Transportation	Public	S	X	JTPA-funded training for school bus drivers. School district provides the training and curriculum development; trainees receive commercial drivers' licenses at the end of training.

*Note: Size of Company is classified as S, M, or L -- small, medium, or large. Small firms have 100 or fewer employees, medium firms have 101-500 employees, and large firms have more than 500 employees. Firms are classified according to the size of the establishment we visited. For example, the Bismarck Shared Services Center of Unisys had about 150 employees, making it a medium-sized firm. Unisys Corporation, however, is a multinational company with thousands of employees worldwide.

II. OVERVIEW OF THE LITERATURE ON EMPLOYER-BASED TRAINING

A. What is EBT?

EBT combines two concepts -- "training" and "employer-based."

There is no standard definition of "employer-based training." The term combines two concepts, "training" and "employer-based," which are frequently used to describe employment-related programs.

The Committee on Postsecondary Education and Training for the Workplace defines training as: "preparation for work that takes place in programs other than those leading to transfer-oriented associate, baccalaureate, or advanced degrees." More specifically, *postsecondary* training is defined as: "organized activities, supplied by schools, employers, or other agencies and organizations, designed to prepare individuals with high school diplomas or who are older than the typical high school student so that they can obtain or advance in jobs that do not require a baccalaureate or advanced degree" (Hansen 1994).

Training connotes a shorter-term program that emphasizes the specific skills needed in a particular job or occupation.

The closer one gets to education that is occupation-oriented, the greater is the problem of distinguishing between *education* and *training*. Education has the connotation of being long term in nature and emphasizing the development of cognitive skills, leading to a credential such as an associate, bachelor's, or graduate degree. It is typically thought to take place in schools and colleges. *Training* connotes a short-term program that emphasizes the specific skills needed in a particular job or occupation. Such programs may lead to a certificate, diploma, or technical associate's degree, but they do not necessarily carry with them any formal credential or academic credit. Training takes place not only in schools and colleges, but in many other settings as well, such as community-based organizations and workplaces. It can occur in a classroom setting or on-the-job.

The term "employer-based" connotes the existence of employer involvement in the training.

The term *employer-based* also requires clarification. Critical elements of employer-based training are that the training is employer-initiated and that training is customized to meet employer needs. This type of learning directly supports the employer's institutional culture and strategic

goals. It begins with a careful analysis of the gap between job requirements and the employee's skills, and ends with an evaluation of the employee's performance on the job (Carnevale 1989). This training can occur at work sites or other locations. These programs include those aimed at helping businesses train new hires as well as those that retrain workers to improve productivity and competitiveness. In the past decade, there has been a trend in state and local agency employment and training programs to work directly with firms as well as with individuals (Osterman 1992).

B. Types of Training Provided

There are a variety of ways to classify EBT training. One system classifies training into four types -- qualifying, skills improvement, retraining, and second-chance.

There are different ways that employer-based training has been classified in the literature. For example, the Committee on Postsecondary Education and Training for the Workplace (Hansen 1994) identifies four major types of training:

- *Qualifying training*, initially preparing people for work;
- *Skills improvement training*, for employed individuals who want further education and training to upgrade their skills and increase their job mobility;
- *Retraining*, for those who have been or are about to be displaced from their jobs and so need to prepare for a new line of work; and
- *Second-chance training*, for individuals who need some combination of basic education and job skills, perhaps in combination with other social services, to reach economic self-sufficiency through employment.

Another way to classify training is by general versus job-specific training.

Another way to classify training is by content of the training, for example, by distinguishing between general and job-specific training. *General training* is portable (meaning that a worker can use the skills gained with another firm or job) and includes training such as basic skills training, stress

or time management, and general computer skills training. *Job-specific training* is firm- or industry-specific and is generally not portable (such as learning to use a piece of machinery or software peculiar to the firm). Becker (1964) suggests firms are less likely to invest in training for general skills and more likely to invest in job-specific training, believing that they can better recover job-specific training costs. General training, which by its nature is portable, is avoided by companies because the worker may move to another firm (with enhanced generalized skills) before the cost of training can be recouped by the firm providing the training.

Another way to classify training is by the specific content of the training.

The Bureau of Labor Statistics (BLS), in its Survey on Employer Provided Training, provides the following classification scheme with regard to types of formal training (note: in parenthesis are the percentage of firms that offer each of these types of training, according to the survey):

- *Job skills training* upgrades or extends employee skills, or qualifies workers for a job (48.1 percent);
- *Workplace practices training* focuses on policies and practices that affect employee relations or the work environment (36.1 percent);
- *Safety and health training* provides information on safety and health hazards, procedures, and regulations (32.4 percent);
- *Orientation training* provides information on personnel and workplace practices and company policies (31.8 percent of firms offer this type of training);
- *Apprenticeship training* is a structured process combining classroom instruction and on-the-job training (18.9 percent); and
- *Basic skills training* teaches reading, writing, arithmetic, and English language skills (2.2 percent).

Thus, employer-based training is generally viewed as employment or job-oriented, can occur in a variety of locations, and can be classified by target group or by program/curriculum content.

C. Companies That Provide EBT and Their Workers

Large companies (those with more than 100 employees) are more likely to provide formal training to their employees.

According to the research literature, whether or not a worker receives training often depends on the type of company for which he or she works, the worker's own characteristics, and the type of job he or she holds. Research shows that some companies are more likely than others to have EBT programs. Generally speaking, large firms (those with more than 100 employees) are more likely to provide formal training to their employees. Other company characteristics associated with providing worker training include (Bishop 1994):

- large, unionized manufacturing establishments;
- firms with more than one establishment;
- companies with flexible or high-performance manufacturing systems;
- firms experiencing rapid technological progress and rapid output growth;
- firms that have not experienced a competitive crisis in the past decade;
- industries that have standardized training;
- firms that have long probationary periods for new hires;
- firms where it is difficult to dismiss a worker after the probationary period;
- industries with low unemployment rates;

- establishments located in areas with low unemployment rates;
- establishments located in metropolitan areas; and
- establishments located outside the South.

About 10 to 15 percent of all workers have received training on their current jobs.

Not all workers receive training, or the same amount of training, from their employers. Most studies find that 10 to 15 percent of all workers have received formal training on their current jobs (Barnow, Giannarelli, and Long 1996). Characteristics of the workers themselves that are associated with receiving more training include (Bishop 1994):

- many years of education, especially those who have completed college;
- above average scores on tests assessing verbal, mathematical, or technical competence;
- previous vocational training relevant to the current job;
- recently hired;
- expected to have low rates of turnover;
- male;
- married; and
- white.

The jobs workers hold may also indicate whether they receive training and how much. These job characteristics are associated with receiving training from employers:

- high value added jobs where the worker has great responsibility;
- cognitively complex jobs;

- sales jobs for complex, customized products that change often;
- jobs involving expensive machinery;
- permanent (as opposed to temporary) jobs;
- full-time jobs; and
- jobs where the skills tend not to be useful at other firms.

Companies are also more likely to offer management skills training and computer skills training than basic skills (such as literacy or numeracy) training.

Research indicates that, by and large, companies offer training to their most skilled and well-trained employees. Companies are also more likely to offer management skills training and computer skills training than basic skills (such as literacy or numeracy) training. For example, a survey by *Training* magazine of organizations with 50 or more employees found that the two most popular types of training -- management skills and supervisory skills -- were provided by 78.5 percent and 69.3 percent of organizations, respectively. Clerical/secretarial skills and computer literacy skills were provided by 56.7 percent and 51.2 percent, respectively. Only 18.8 percent of organizations provided remedial basic education (Lee 1988). Other types of training provided by at least 50 percent of organizations surveyed by the magazine include:

- new employee orientation,
- leadership,
- word processing,
- stress or time management,
- team building, and
- new equipment operation.

D. The Costs of EBT Programs and How Companies Pay for Training

The research literature on EBT programs provides widely varying estimates of the amounts that companies spend each year on training. Direct costs of training include instructor wages, purchase of curricula, room rental, and

training materials. Indirect costs are more difficult to ascertain and include worker wages while in training and lost productivity during training.

Costs of training programs are difficult to determine; estimates range from $32 billion to $148 billion annually.

Estimates of the direct costs of training available in the EBT literature include estimates by Anthony Carnevale (1990) that firms spend over $32 billion annually on formal training programs; Bartel's (1989) estimates that $55 billion was spent on firm-provided training in 1987; and Mincer's (1989) estimates that $148 billion was spent on formal training in 1987. These data are the most recent available, and the differences between the estimates indicate the difficulty in arriving at the figures.

Most firms finance their formal training programs out of working capital.

Companies typically pay for training costs out of their working capital. For example, a Price Waterhouse survey (1994) found that 93 percent of firms finance their formal training programs out of working capital. Another approach to financing training is to shift some or all of the cost to employees, particularly for more generalized training. For example, companies might pay a fixed percentage of training costs through a tuition-reimbursement program (e.g., 50 percent of the costs of tuition and books). Firms may also look to offset costs of training through publicly-sponsored training programs. For example, as discussed later in this report, firms may establish partnerships with programs such as JTPA, under which the government program pays a portion or all of training costs with the understanding that successful trainees will be hired by the firm. State and local economic development programs may also provide funds for worker training.

Companies employ a range of strategies to stretch resources available for training.

To reduce costs and maximize training expenditures, companies have used several strategies, including:

- Having expert employees serve as instructors in classroom training provided on-site.
- Writing training manuals or creating training videos that can be used repeatedly -- either on an employee's own time or in a training class.
- Providing training in conjunction with other

companies with similar training needs.

- Renting training videos or purchasing standard curricula from industry associations.

- Using non-profit community organizations to provide needed basic skills or English as a Second Language training.

E. The Benefits of EBT

Research suggests that worker training increases employee wages and productivity, though additional research is needed.

Human capital theory suggests that training should increase worker productivity. Available research generally suggests that training increases both employee wages and productivity; however, training is often measured inadequately, and these results should be interpreted cautiously (Barnow, Giannarelli, and Long, 1996). Bishop (1994) concludes that employer training raises productivity (using a subjective measure) by almost 16 percent. Barron, Black, and Loewenstein (1989) conclude, based on a statistical analysis of wage and productivity growth, that training and wage and productivity growth are directly related. Using data on new employees only, the researchers found that worker training was the primary factor that positively affected productivity growth. Other variables examined, including formal education, unionization, and gender, appeared to play no important role in affecting productivity growth (Barron, Black, and Loewenstein 1989).

A recent survey by BLS is the first nationally representative survey to document the contribution that a workforce's average level of education makes to the productivity of individual establishments. The survey queried managers and owners of approximately 3,000 establishments employing 20 workers or more about their employment, training, and hiring practices. In order to relate these practices to productivity, respondents were also asked about the basic nature of their business: annual sales, principal products and services, investments in equipment and new facilities, costs of materials used in production, and the average wages and level of education of their workers. For the survey sample of manufacturing and non-manufacturing

establishments with more than 20 employees, a 10 percent increase in the average education of all workers within an establishment was associated with an 8.6 percent increase in output for all industries surveyed, other things being equal. This effect was 11 percent for the non-manufacturing sector (NCEQW 1995).

Other studies that link training and productivity have relied upon subjective measures of productivity gains, such as "on a scale of 1 to 4, how has your productivity changed over the last year?" rather than using actual output value or value added (at the firm or worker level) in order to construct measures of labor productivity or total firm productivity (Bartel 1994, Lynch and Black 1995).

Hence, research, at this point, is primarily limited to studies of the effects of training on productivity and worker wages. For example, there are no reliable empirical studies on the effects of training on employee turnover, morale, or accidents. Despite the lack of formal research, there is considerable anecdotal evidence corroborated by the companies analyzed in this report regarding the positive effects of employer-based training on companies, including benefits in the following areas:

- increased productivity,
- increased profits,
- improved employee morale,
- higher retention of employees,
- higher customer satisfaction,
- fewer accidents, and
- fewer mistakes/scrap parts.

III. STUDY FINDINGS

This study analyzes two types of companies: those that partnered with JTPA to provide training and those that did not.

The analyses of EBT training programs provided in this section are characterized as: 1) those companies that have partnered with JTPA to provide customized training and 2) those companies that have not received JTPA funds for the establishment of their training programs. All of the companies partnering with JTPA established training programs for new workers, and most gave commitments to

hire workers if they successfully completed training. The non-JTPA funded EBT programs all targeted training on their existing workforce (i.e., incumbent workers), though once hired, new workers were included in the training programs. With the exception of one company that received funding through California's Employment Training Panel (ETP), all of these non-JTPA funded employer-based training programs were privately financed. The next two sections of this report highlight major characteristics, outcomes, and costs of these JTPA and non-JTPA funded initiatives, based on the experiences of the 17 companies visited for this study.

A. JTPA-Funded Training

Nine case study companies partnered with JTPA to provide job-specific and general training.

Exhibit 2 provides an overview of key characteristics of the nine companies under review receiving JTPA funding to support their EBT programs. Most of these programs were funded by JTPA Title II-A funds, but two programs used a combination of Title II-A and Title III or Older Worker funds (JTPA Title II-A provides job training funds targeted to disadvantaged youth and adults. Title III targets dislocated workers, and the Older Worker program provides job training for workers age 55 and older). In addition to partnering with JTPA, one site -- TempsPlus/Staffing Solutions -- also had a similar arrangement to serve Job Opportunities and Basic Skills (JOBS) participants and received JOBS funding. (JOBS is a federal job training program administered by the U.S. Department of Health and Human Services that provides job training to recipients of the Aid to Families with Dependent Children program.)

All of the JTPA-funded programs were created to recruit, screen, assess, and train new workers.

Reasons for Initiating EBT Programs and Types of Workers Trained. All of the JTPA-funded programs were created to recruit, screen, assess, and train new workers for employment with the sponsoring company. Companies typically faced a scarcity of a particular type of skilled, entry-level worker -- and so were interested in establishing a program that would both help with recruitment and offset on-going training costs. JTPA was interested in sponsoring such customized initiatives because it was viewed as an effective way to train, place, and retain workers in full-time, well-paying jobs.

EXHIBIT 2: CHARACTERISTICS OF JTPA-FUNDED TRAINING

Company	Occupations Trained For	Training Provider	Type of Training	Number Screened /Considered /Applied	Number Enrolled in Training	Percent Completing Training	Percent Hired	Cost per Slot (paid by JTPA)	Employer Contributions to Training
C.D. Baird	Entry-level printing and binding	Union-sponsored industry school	CT-OS, P[1]	50	20	90%[2]	n/a[3]	$2,650	$0
NeighborCare Pharmacies	Pharmacy Technician	Community college	CT-OS, P, WS	40	18	100%	n/a	$1,495	Some instructor time, labs for practicum
Pacific NW Federal Credit Union	Member Services Representatives	Non-profit training organization	CT-OS, W, OJT	50-60	17	82%	n/a	$2,143	$0
Pep Boys	Cashiers, Customer Service Representatives, Parts/Sales Associates	Non-profit training organization	CT-OS, W, OJT	270	124	79%	100%	Parts/Sales Associates = $4,700; Cashier/ Customer Service =$5,100	$250,000 cash and in-kind for the first year
Solectron	Electronic assembly workers	Vocational training provider	CT-OS, P	n/a	40	90%	82%	n/a	$40,000 in-kind (equipment and materials)

[1]Codes are: CT-OS = Classroom Training - Occupational Skills; P = Practicum; W = Workplace Skills; OJT = On-the-job Training

[2]Number successfully completed is in parentheses if the first training session had not been completed by the time of the site visit. Number includes those still in training at the time of the site visit. Number hired is n/a if the course had not been completed.

[3]Percent hired is of those completing training.

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EXHIBIT 2: CHARACTERISTICS OF JTPA-FUNDED TRAINING

Company	Occupations Trained For	Training Provider	Type of Training	Number Screened /Considered /Applied	Number Enrolled in Training	Percent Completing Training	Percent Hired	Cost per Slot (paid by JTPA)	Employer Contributions to Training
TempoPlus	PC specialist, office skills	Proprietary school	CT-OS, W, OJT	15-16	5	100%	100%	$2,577	Company assigned human resources employee to assist in screening and orientation. Company pays for advanced training for those hired.
Wisconsin Electric Power Company	Line mechanics	Technical college	CT-OS, P	n/a	16*	69%	6%	$5,625	$50,000 cash and $150,000 in-kind
Yuma Transportation Consortium	School bus drivers	Company (i.e., school district)	CT-OS, P, WS	450	90	90%	100%	$1,300	Company developed curriculum and provides instructors

*These figures for WEPCO's first training class. While 11 graduated from the program, only 2 passed WEPCO's exam, and 1 was hired.

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Companies initiated programs to boost productivity, improve quality, and for a host of other reasons.

In addition to filling job vacancies with workers with the requisite competencies/skills, companies also looked to the training program to:

- boost productivity and profitability,
- improve the quality of goods/services,
- ensure on-time production/delivery of goods/services,
- improve the level of customer service,
- facilitate hiring and training of workers within the community, and
- increase worker morale and reduce turnover.

Customized training programs provided training to a wide variety of workers entering jobs in both the service and manufacturing sectors.

As shown in Exhibit 2, the customized training programs provided training to a wide variety of workers entering jobs in both the service and manufacturing sectors. Some examples of the types of workers trained follow:

- Faced with a shortage of skilled assembly line workers, Solectron Corporation partnered with its local Private Industry Council (PIC) and a local vocational training organization to establish a 26-week training program in the emerging field of surface mount/pin-through-hole assembly.

- With plans to open 40 to 60 new automotive parts and service stores in the Los Angeles area, Pep Boys collaborated with the City and County of Los Angeles PICs and the Urban League's Automotive Training Center to establish a five-week training program for cashiers and customer service representatives and an eight-week training program for sales/parts representatives. The program was also aimed at reducing employee turnover at area stores.

- Facing a critical need for 25 to 30 new school bus drivers each school year and difficulties finding drivers with appropriate training and licensing, the Yuma Public Schools Transportation Center teamed up with the

Yuma PIC to establish a five-week training program which included two weeks of classroom instruction and three weeks of behind-the-wheel instruction.

Curriculum Development and Provision of Other Resources for Start-up. One of the hallmarks of EBT programs -- and what sets them apart from more traditional JTPA training -- is the active involvement of employers in customizing training so that trainees emerge from the training program with the skills/competencies needed for a specific job. One of the key advantages of EBT -- one cited by all of the firms we visited -- was that the employer had substantive input into the types of training provided and the instructional methods used.

Companies worked closely with the education and training institutions to develop curricula and instructional materials.

In all of the JTPA-sponsored EBT programs visited, companies worked closely from the beginning with the education and training institutions providing the training (such as community colleges, vocational schools, and other educational providers such as Goodwill Industries and the Urban League) to develop curricula and instructional materials. Typically, the training vendor took the lead in the development of curriculum and instructional methods for the training program, but closely consulted with the company throughout the development process. In most instances, the training vendor already had a core curriculum, but needed input from the employer to tailor the curriculum and instructional methods to meet the employer's needs.

> ***Prior to developing the curriculum for NeighborCare's pharmacy technician program, Baltimore City Community College (the training vendor) conducted an intensive two-day curriculum development session with company officials. During this session, the company provided input on the competencies and skills that individuals needed in order to fill pharmacy technician openings at NeighborCare pharmacies.***

Determining eligibility and selecting applicants was a joint responsibility of the company and JTPA.

Recruitment, Eligibility Determination, and Selection of Training Candidates. Recruitment, eligibility determination, and selection of training candidates for EBT programs sponsored by JTPA was typically a shared responsibility of the company and JTPA. In most instances,

the JTPA program or training vendor took the lead on recruitment and eligibility determination, but received considerable input from the employer on the types of workers that should be considered for program participation.

Methods of recruitment were similar to those used by JTPA programs in their general recruitment of participants for Title II or III programs.

With some exceptions, methods of recruitment for most programs were similar to those used by JTPA programs in their general recruitment of participants for Title II or III programs -- word-of-mouth, referral from other human service agencies, and television, radio, and newspaper advertisements. A few of the programs recruited candidates for the specific training program, e.g., school bus driver training. JTPA or the training providers placed advertisements in local papers with diverse readerships, and some training providers (such as the Urban League) recruited participants through other programs they operated.

JTPA-eligible applicants were screened according to guidelines suggested by the companies.

Once recruited, applicants for these training programs generally underwent a two-tiered selection process. First, recruits were screened by the PIC to determine their eligibility and appropriateness for the JTPA program. Second, JTPA-eligible applicants were screened according to the companies' criteria (e.g., having a high school education, specific reading or math levels, and specific work experience).

About five times the number of individuals needed to form a class for Yuma's school bus driver program were generally screened by the Yuma PIC for participation in the program. In addition to screening candidates based on interests and aptitude, the Yuma PIC refers only those who could meet the following criteria established by the school district (and by state laws):

- *be at least 22 years of age;*
- *be a high school graduate or equivalent;*
- *have a clean driving record;*
- *be able to pass a physical examination and drug test; and*
- *not have a criminal record.*

Job-specific training with workplace or business skills training was most common.

Types and Structure of Job-Specific Training Provided. Training offered by companies was usually job-specific and carefully customized to the specific training requirements of the employer and workers. Under each of

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the programs examined, training was customized for the companies -- generally with direct input from employers on the curriculum and instructional methods. Training was designed to prepare workers for a specific job opening at the company sponsoring the training.

TempsPlus provided office skills and computer software training for JTPA and JOBS participants -- and later tested each individual's competencies -- so that when a temporary placement was made, TempsPlus could be certain that the individual had the necessary skills to immediately meet the employer's requirements.

The duration of training ran from five weeks to 36 weeks; training in terms of total hours was typically shorter than most Title II-A training.

The duration of training varied substantially across EBT programs. As shown earlier in Exhibit 2, the duration of training ran as short as five weeks in Yuma's school bus driver training program and in the Pep Boys training program for cashier/customer service representatives to as long as 36 weeks for line mechanics in the WEPCO training program. The training was in the range of 80 to 1,260 hours, but was generally shorter than that provided under JTPA Title II-A (which for PY 1993 averaged 585 hours for Title II-A terminees nationally).

All of the JTPA-sponsored EBT programs used a combination of classroom and laboratory ("hands-on") training.

While the content of job-specific training varied substantially across training programs, the instruction methods were quite similar. All of the JTPA-sponsored EBT programs used a combination of classroom and laboratory ("hands-on") training. A strong emphasis was placed on both (1) providing trainees with the job-specific knowledge they needed for the job through classroom instruction and (2) simulating specific job functions/tasks through laboratory workshops or OJTs. A couple of examples follow:

- C.D. Baird and Company's EBT program provides both classroom and hands-on training through the Milwaukee Graphic Arts Institute (MGAI), a local industry-sponsored training provider. MGAI utilizes state-of-the-art printing and binding equipment and provides excellent practical training.

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- NeighborCare's pharmacy technician training program includes 100 hours of classroom training and 40 hours of practicum in work settings. The classroom training takes place on the Baltimore City Community College campus. The practicum includes working in both retail and clinical pharmacy settings.

- After successfully completing classroom training, trainees were hired by Pep Boys in sales, cashiers, or customer service positions. Most trainees started working for the company on five-week OJTs, during which JTPA subsidized half of the trainees' wages.

Many JTPA trainees needed training in basic skills, literacy, and/or workplace skills in addition to the job specific training they received.

Types and Structure of Basic Skills and Other Employability Enhancement Training. Companies and training providers found that in addition to job-specific skills training, many JTPA trainees needed training in basic skills, literacy, and/or workplace skills. Some trainees had never worked and others had been out of the workforce for many months or years. Some had lost previous jobs because of a lack of workplace skills such as an inability to get along with supervisors and co-workers or because they failed to report to work on time.

All of the JTPA-sponsored EBT programs included some type of pre-employment and workplace skills training.

Most of the JTPA-sponsored EBT programs included some type of pre-employment and workplace skills training. This training included workshops on how to dress for work, show up on time, develop a positive work attitude, use business English, work effectively with others, answer the telephone, and stress and time management. This type of instruction was either concentrated into a one- or two-week seminar prior to the start of the training (often as part of JTPA's objective assessment process) or incorporated into the curriculum over the course of the training.

After JTPA intake and objective assessment, candidates for the Yuma's school bus driver training program attend a two-week life skills and pre-employment work maturity workshop operated by the PIC. The first week of the workshop is devoted to survival skills and includes group workshop sessions on being a good listener, problem solving and decision making, sociability, career exploration, self-esteem, family health and nutrition, and money management. The second week focuses on pre-employment and work maturity skills, including sessions such as making career decisions, using labor market information, completing job applications and resumes, effective job interviews, positive attitude and behaviors, appropriate appearance. Immediately following this two-week workshop, participants move into the five-week school bus training program.

All of the JTPA-sponsored training programs built in testing of basic skills and interests as a screening device for program participation.

Some participants of the JTPA-sponsored EBT programs also needed to address basic skills deficiencies in order to take full advantage of the training offered. All of the JTPA-sponsored training programs built in testing of basic skills and interests as a screening device for program participation. From the perspective of companies sponsoring the EBT initiatives, one of the advantages of working with the JTPA system was that it could provide basic skills screening and arrange for basic skills training before workers entered job-specific training. Basic skills training was generally provided by local non-profit community organizations and paid for by the public sector.

Before candidates are sent to the Pep Boys customized training program, each recruit is screened for JTPA eligibility and, if eligible, enters JTPA's objective assessment process. The assessment process includes an in-depth interview with a JTPA case manager and a battery of tests to identify basic skills, aptitude, and motivational levels of potential participants. Those identified as having basic skills deficiencies are referred to adult basic education programs for remediation prior to entry into the Pep Boys training program. The Urban League (which operates the training facility for the Pep Boys' program) also has its own resources and referral arrangements for individuals needing help with basic skills.

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In exchange for subsidized training, companies made a firm commitment to hire successful trainees.

Hiring Commitments Made by the Company. Most of the case study companies partnering with the JTPA system provided either a written or oral commitment that they would hire trainees who successfully completed the training program. Some PICs requested commitment of a certain wage level for trainees and/or that a certain percentage be retained for a specified number of months (e.g., six months or a year). As discussed later, most of the firms studied did, in fact, live up to their commitments by extending job offers to successful graduates of the training programs.

Training curricula typically included a competency test at the end of the training.

Companies generally provided input to JTPA and the training provider on what constituted "successful" completion of the training. Often, companies wanted trainees to maintain excellent attendance records. Training curricula typically included a competency test at the end of the training, and some companies administered their own tests to trainees at the conclusion of training, hiring only those who passed the test.

Wisconsin Electric Power Company (WEPCO) collaborated with the local JTPA on a line mechanic training program that targeted minorities and women. Once they completed the training program, students took the WEPCO line mechanic employment test. Only those who successfully passed the test were considered for employment. WEPCO did not make a commitment to hire program graduates, even those who passed the test.

Customized training is a win-win-win situation for SDAs, employers, and JTPA clients.

Benefits of JTPA-sponsored employer-based training. All of the companies partnering with JTPA indicated that the returns on their investment in the customized training effort far outweighed costs. In fact, in discussions with companies, PICs, and training participants, the customized training programs were cited as a "win-win-win" situation for everyone involved. The company sponsoring the training "wins" because:

- training costs are subsidized by the government;

- training is customized to company's needs, so workers emerge from the program with the skills they need to be productive from their first day on the job;

- JTPA and/or the training vendor can help with recruiting, assessing, and screening applicants; and

- in addition to providing customized job-specific training, JTPA and/or the training vendor can provide basic skills remediation, workplace skills training, and case management to ensure that trainees perform well on the job.

Companies we interviewed also indicated that the training provided under their EBT programs had a positive and direct effect on the firm's "bottom line" by contributing to a high performance workforce, a customer-service focus, lower turnover, and improved morale.

The PIC "wins" because:

- a high percentage of trainees complete training -- in part, because they are motivated by the availability of jobs at the end of the training;

- almost everyone who successfully completes the training obtains full-time work in jobs paying at or above the JTPA average wage; and

- with appropriate training and other support services available through the JTPA program, retention rates for those entering training are high.

Overall, the high placement and retention rates achieved through customized EBT programs help the PIC in meeting JTPA performance standards and enhances its reputation as a resource for high quality training services with employers, the training community, and prospective program participants.

Finally, the worker "wins" because:

- training enhances trainees' skills and long-term employability both at the firm that sponsored the training and with other firms;
- jobs are generally guaranteed if the trainee successfully completes training;
- the jobs are generally full-time, paying at least the average JTPA wage, and often include fringe benefits and career advance potential; and
- basic skill deficiencies and other barriers to employment are carefully assessed and the JTPA program can provide or arrange for a variety of support services to assist the individual to complete training and secure employment.

Customized training has outcomes that meet or exceed outcomes obtained by JTPA Title II-A terminees overall.

Outcomes for JTPA-sponsored Employer-based Training. All PIC administrators we interviewed indicated that the results of their customized training programs (both the ones that were the focus of this study and others they had initiated in their locality) were at least as good as, and generally substantially better than those achieved under the more traditional types of JTPA training programs. The results that were reported for each of the JTPA-sponsored EBT programs visited in this study solidly support the contention that customized programs yield excellent results for companies, workers, and the JTPA system. Two factors seem to be paramount in the success of these programs:

- training provided is customized to meet the needs of the company so trainees emerge with the skills they need to be productive; and
- in exchange for the subsidized training, companies make a firm commitment to hire individuals who successfully complete training.

Although the sample of sites visited was small and programs were exemplary and still relatively new, the results for the EBT programs reviewed were impressive:

All trainees received occupational skills training, and more than 80 percent completed the skills training.

- In the nine programs visited, over 80 percent of those beginning training successfully completed training, with most programs having over 90 percent completion rates.

Virtually all trainees to complete training successfully were placed in jobs.

- Because most companies made a commitment to hire employees if they were successful in completing training, almost all successful trainees obtained jobs. In comparison, in PY 1993, 62 percent of JTPA terminees nationwide entered employment.

Wages for trainees were generally between $6.25 and $8.00 per hour, and most received fringe benefits.

- The average hourly starting wage generally ranged from $6.25 to $8.00 per hour for trainees hired by the case study companies (though it ranged as high as $16.46 for line mechanics trained under the Wisconsin Electric Power Company's customized program). In all nine firms studied, the starting wage exceeded the average hourly wage for Title II-A participants in the locality. Nationwide, the average hourly wage for JTPA Title II-A terminees in PY 1993 was $6.86.

- All of the trainees hired by case study companies received fringe benefits (including medical benefits), generally after an initial probation period (e.g., 90 days). Some companies even included benefits such as eye care and 401k programs.

- Although still early and not available for all firms studied, retention rates for those hired appeared to be high. For example, during its first training program for JOBS participants, TempsPlus/Staffing Solutions trained five participants, and all five successfully completed the training. Six months later (at

the time of the site visit) all five were still employed with TempsPlus/Staffing Solutions. In comparison, for PY 1993, JTPA reported a 69 percent retention rate, with 43 percent employed with the same firm.

Costs of JTPA-funded training ranged from $900 to $2,700 per participant.

Costs of JTPA customized training. The JTPA reimbursement for training to training vendors under the program ranged from $900 and $2,700 per participant. As shown in Exhibit 2, tuition costs for most of the programs visited were generally around $2,000 per participant. The cost of training was typically negotiated between the JTPA program and the training vendor. If the program was open to non-JTPA participants, the tuition was the same as that charged to JTPA participants.

As noted earlier, companies often provided cash for start-up costs or in-kind contributions of equipment and instructional expertise. For example, Solectron provided computer boards and electronic components on a regular basis for use in the laboratory portion of its training program. All of the firms indicated that the returns on their investment in the customized training programs far outweighed their outlays.

Despite its many advantages, firms and PICs face a number of barriers to establishing customized EBT programs.

Barriers to Establishing JTPA-Sponsored EBT Programs. Given these outcomes, why is customized training not used more often? Companies and PICs we interviewed identified a number of barriers to the establishment of EBT programs:

- The occupational areas in which training is to be provided must generally be ones in which there is unmet demand within the locality. Employers that can obtain skilled manpower with relative ease within their local labor market are unlikely to be interested in establishing customized training programs.

- Small- and mid-sized companies -- and even large firms -- may lack the critical mass of workers and resources needed to establish a customized training program. For example, if

a company needs only one or two new workers with a specific skill per year, the costs of customization are likely to outweigh the benefits.

- Companies may be reluctant to make a firm commitment to hire successful graduates of EBT programs because they are unsure about the number of openings they will have in the future.

- The time and effort involved in negotiating and establishing a customized training program can be considerable for both the firm and the SDA. For example, several of the customized programs included in this study took over a year to negotiate and become operational.

- Companies are likely to need to commit some level of resources to get customized programs underway and keep them going. For example, to customize the training, it may be necessary to donate equipment and materials to the program. In addition, firms generally need to be actively involved in curriculum development and may need to commit to providing assistance with instruction. Small companies, especially, may not have the necessary working capital available for customized training programs.

- Companies may be wary of working with government programs because of fear of paperwork and "redtape," as well as concerns over the possibility of future audits. They also may lack knowledge about government training programs and the time to find out about them.

- Lack of available JTPA funding and the occurrence of funding cycles can create uncertainty for SDAs as to their ability to

support customized training programs from year to year.

B. Non-JTPA Funded Training

With the exception of one company (Elgar Corporation) that received funding through California's Employment Training Panel (ETP), the EBT programs visited at the eight non-JTPA funded companies were privately-financed. Generally, the funding came from the company's working capital. Exhibit 3 provides an overview of key characteristics of these EBT programs.

The non-JTPA funded EBT programs all targeted training on upgrading the skills of their existing workforce (i.e., incumbent workers).

Reasons for Initiating EBT Programs and Types of Workers Trained. The non-JTPA funded EBT programs principally targeted training on upgrading the skills of their existing workforce (i.e., incumbent workers). Once hired, new workers were included in the training program. In some instances, training was part of an overall emphasis on creating a high performance workplace with an emphasis on customer service and on-time delivery of high quality goods/services. Some companies were responding to changes in technology and needed to upgrade worker skills to operate new equipment and implement new production processes. Still other companies viewed training as an integral long-term strategy for keeping the company -- and its workforce -- up-to-date and competitive.

The research mentioned in Section I indicated that companies generally tend to provide training for their most educated and skilled workers. The case study companies, however, made an effort to provide training to upgrade the skills of low-skill workers as well as managers and supervisors. Some examples of the types of workers trained follow:

- Boeing's Quality Through Training Program (QTTP) makes tuition reimbursement, basic skills training, retraining for dislocated workers, and upgrading training available to all IAM-represented employees.

EXHIBIT 3: CHARACTERISTICS OF PRIVATELY FINANCED EMPLOYER-BASED TRAINING PROGRAMS

Company	Occupations Trained	Training Provider	Type of Training	Total Training Expenditures	Per Worker Expenditures
Boeing	All IAM-represented occupations/ workers (including low-skill assembly workers up to supervisors)	Company staff, colleges (through tuition reim.)	CT-OS, CT-BS, OJT, ESL[5]	$9,600,000	$384[6]
Elgar Corporation	Most employees, including managers, engineers, production planners, assemblers, quality inspectors, test technicians, computer programmers, and sales staff.	In-house staff and outside trainers	CT-OS, OJT, HPW	$333,130 (the amount of the ETP contract)	$990 to $2,654
Financial Partners	New workers and all existing workers	Company staff, colleges (tuition reim.), seminars	CT-OS, OJT, HPW	No records kept by the company	No records kept by the company
Goodwin House	All employees, including nursing, food service, and housekeeping	Company staff, non-profit workplace literacy provider	CT-OS, OJT, HPW, ESL	$40,000	$80
GR Spring and Stamping	All employees, including management, assembly workers, machinists, tool and die makers	Company staff, colleges (tuition reim.), seminars	CT-OS, OJT, HPW	No records kept by the company	No records kept by the company
Lucas Aerospace	All employees, including management, engineers, assembly workers, machinists, and tool and die makers	Company staff, local vocational school, colleges (tuition reim)	CT-OS, OJT, HPW	$160,000	$471

[5]Codes are: CT-OS = Classroom Training - Occupational Skills; CT-BS = Classroom Training - Basic Skills; OJT = On-the-Job Training; HPW = High Performance Workplace; ESL = English as a Second Language.

[6]Boeing's expenditures listed here included only QTTP expenditures. QTTP is one of several Boeing training programs and is available only to eligible workers (those represented by IAM). This figure, then, comprised of QTTP expenditures divided by QTTP eligible workers.

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EXHIBIT 3: CHARACTERISTICS OF PRIVATELY FINANCED EMPLOYER-BASED TRAINING PROGRAMS

Company	Occupations Trained	Training Provider	Type of Training	Total Training Expenditures	Per Worker Expenditures
TMI	All employees, including management, engineers, assembly workers, machinists, and tool and die makers	Company staff, colleges (tuition reim)	CT-OS, OJT, HPW	$13,390 (tuition only)	$95 (tuition only)
Unisys	All employees, including management and financial services staff (accounting, data entry, customer representative)	Consortium of local colleges, consultant, company staff	OJT, HPW	$603,000[7]	$4,638

Source: James Bell Associates. Interviews with case study companies.

[7] Unisys was the only company to include both direct and indirect costs in its estimate of training expenditures.

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- TMI offers tuition reimbursement and on-site training to all employees. Both managers and line personnel have the opportunity to travel to other states and foreign countries to visit plants and learn new production techniques.

- Elgar Corporation provides re-training to upgrade the skills of two-thirds of its existing workforce of 360 managers and line personnel. Training includes classroom training and structured on-the-job training.

While emphasizing job-specific skills, programs also included basic skills training and other general job training.

Types of Training Offered. These non-JTPA funded programs provided a wide range of training -- usually emphasizing job-specific training, but including some general training. Job-specific training offered by the case study companies, of course, varied by company. For example, the manufacturing companies (Boeing, Lucas Aerospace, TMI, Elgar, and GR Spring and Stamping) provided extensive training in production techniques and skills, including blueprint reading, tolerancing, assembly, statistical process control, AutoCAD and many other technical skills. An important component of job-specific training also centered on use of new equipment, technologies, or new manufacturing and production techniques.

All companies provided some generalized training in areas such as English as a Second Language; basic English and math; use of wordprocessing, spreadsheet, and other computer software; team building training (including effective communication, leading meetings, goal setting, and time management); customer services and sales; ethics; safety training; management skills and total quality management training (TQM); and general workplace skills (e.g., positive attitudes, punctuality, and interpersonal skills).

Tuition reimbursement was offered by five of the eight companies.

Of the eight non-JTPA EBT programs visited, five offered tuition reimbursement programs. Two of these companies (Lucas Aerospace and GR Spring and Stamping) set no limit on the amount employees could be reimbursed for tuition. In addition, four companies allow workers to take courses that are not directly job-related. As the staff at Boeing's Quality Through Training Program expressed it, all

training and education are valuable on the job, whether or not that training is specifically job-related.

> ***GR Spring and Stamping instituted its Lifelong Learning program to provide general training to employees in addition to its extensive job-specific training opportunities. Lifelong Learning courses (about 1 ½ hours each) are held every other week and are mandatory for all employees. Each year three sessions are devoted to cultural diversity in the workplace during which employees make presentations about their home countries or cultures. Other sessions include presentations by employees who have participated in conferences or seminars off-site or who visited other manufacturing plants. Each session is held four times over two days so that all employees have the opportunity to attend without causing too much disruption on the plant floor. The sessions are also videotaped for those unable to attend the sessions.***

Most companies had only one or two training staff.

Staffing/Use of Outside Resources. Most companies we visited had only one or two staff persons to organize and manage their training programs. Usually these staff were human resource managers. For example, the human resource manager at Lucas Aerospace kept records of training received, maintained the training budget, surveyed staff about needed training, arranged for training courses at the local vocational school, arranged in-house training, and decided on the training priorities of the company.

Company staff can provide training to new workers and workers seeking to upgrade their training through on-the-job training, mentoring, and classroom training.

Hiring or contracting with outside trainers is not necessary for building a successful EBT program. No company, except Boeing, had a large staff of trainers (Boeing's QTTP program has a staff of 33, including both trainers and administrators. QTTP, though, is only one of Boeing's several job training programs, and other programs have additional training staff). Case study companies often utilized expert employees to provide training. In-house experts are good training resources and can provide on-the-job training for new and existing workers as well as classroom training on special topics. Much of the training provided by case study companies was on-the-job training using company experts as instructors. Several companies, especially those in manufacturing, assigned mentors to new employees. New employees learned their jobs from the mentors, and training

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sometimes lasted as long as a year.

Expert and knowledgeable employees (including, but not limited to supervisors) were used to cross train employees as well. In-house experts were also used to provide classroom instruction on general topics needed by all employees in a department or the company. For example, expert nurses at Goodwin House Retirement Community provided training in hygiene and feeding techniques to the nursing staff. Lucas Aerospace engineers taught basic blueprint reading to other employees.

Outside trainers (consultants or staff at local educational institutions) sometimes supplemented company training.

Some companies supplemented the training provided by in-house experts with outside trainers. Outside trainers were usually found through local educational institutions, such as community colleges and vocational schools, and provided training that in-house staff were unable to provide or provided less economically. Local consultants and trainers available through industry groups were also good resources.

> ***Lucas Aerospace used expert employees to provide much of its employee training. The company also contracted with a local vocational school to provide more in-depth courses (advanced blueprint reading) and computer courses that required a lab setting with computers available for all the students. In addition, the company contracted with an outside consultant to provide required ethics and customer service training to all employees.***

Companies used on-the-job training, developed training manuals and videos, and purchased curricula from outside organizations.

Curricula Development and Instruction. The degree to which defined, formal curricula were used for EBT programs varied by company. Often, the type of training determined whether a formal curriculum was used by companies. For some training, especially training in manufacturing plants, companies relied on supervisors and mentors to train workers during structured on-the-job training. To guide this on-the-job training, several companies developed training manuals or lists of skills to be acquired for particular positions. These manuals and skills lists were developed by in-house staff and served to standardize the training received by employees. Others, including Boeing and TMI, developed training videos (GR Spring and Stamping rented training videos from an industry association). The videos, like on-the-job training, allow employees to learn

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skills and procedures by watching them being performed by specialists or company experts.

Curricula can be purchased from educational institutions or firms. The training can then be provided by company staff or consultants using the curricula. Case study companies also contracted with educational institutions to provide both curricula and instruction.

Unisys' Bismarck Shared Services Center provides extensive team-building training to employees. Unisys purchased a standard curriculum from a national educational company specializing in team-based workplace curricula. The curriculum included student materials and training for the course instructor. Unisys hired a local quality expert from the University of Bismarck to conduct the training.

Goodwin House Retirement Community contracted with a local workplace literacy provider for English as a Second Language classes. The literacy organization provided a workplace literacy curriculum that it developed over several years, plus instructors, and classrooms.

Costs ranged from $80 to $4,638 per employee.

Costs of Training. The case study companies using their own funds for training reported a wide range of annual training expenditures: $80 per employee at Goodwin House to $4,638 per employee at Unisys (these expenditure figures are calculated per employee, not per trainee). Most companies did not keep detailed records of training participation, making it difficult to know how many employees utilized a particular training opportunity. These total annual expenditures -- for all companies except Unisys -- included only direct costs (e.g., instructor's time, materials, fees to schools, and tuition reimbursement), not indirect costs (e.g., time employees spent in training and lost productivity). Unisys included indirect costs in its expenditures; this inclusion helps explain the difference between training expenditures at Unisys and the other companies. Two companies did not have training budgets and did not keep records of training expenditures, preferring to treat training as a necessary expenditure (TMI and GR Spring and Stamping).

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Companies paid workers' wages during training -- except for attendance at college courses.

Scheduling of Training. Whether or not employees received their wages while in training depended on the company, whether the training was during regular training hours, and the type of training involved. Most companies with privately-funded training programs paid employee wages while in training if the training occurred during normal working hours and was job-specific training. Companies typically scheduled job-specific training during normal working hours or paid workers (especially line workers) to come in either after/before hours or on Saturdays for training.

With regard to some types of more generalized training (such as basic skills instruction and English as a Second Language) and tuition reimbursement programs for study at vocational schools, community colleges, or colleges/universities, companies generally expected workers to attend classes and study on their own time. Some employers allowed those attending classes that were only available during normal working hours to adjust their schedules to attend classes and make up lost hours after normal working hours.

Outcomes include increased productivity, decreased lost-time accidents, and increased employee morale.

Outcomes of Training. Few companies that participated in this study maintained data on the effects of training on variables such as productivity, lost-time accidents, or employee morale. Case study companies believe (even when they maintained no data on the effects of their training programs) that employee training increases worker productivity and morale, and decreases health and safety accidents and employee turnover. Long-term increases in productivity were sometimes preceded by an initial drop-off in productivity while employees participated in training. Most companies felt this initial decline to be negligible and that the long-term benefits of training substantially outweighed the short-term costs.

IV. STRATEGIES FOR BUILDING SUCCESSFUL EBT PROGRAMS

There is no single method for structuring a successful training program.

Successful employer-based training programs can be implemented by a wide range of companies and can differ in a number of ways: size of company, amount expended on training, type of training offered, and outside assistance for the training program. There is no single method for structuring a successful training program.

Although the goals of JTPA programs and companies are similar (to train productive workers), the strategies employed by each to create successful EBT programs are different.

A. JTPA-Funded Training

Our interviews with companies using JTPA-funded training revealed several strategies that SDAs should undertake in establishing EBT programs.

JTPA programs should be visible in the community.

Be visible. In almost every instance, case study companies and SDA staff met and began initial discussions at community meetings, such as business roundtables. SDAs should be visible in the business community by attending meetings of local industry groups, business roundtables, or chambers of commerce to make presentations about JTPA and the opportunities for training. It will also be beneficial for JTPA programs just to have ongoing representatives at meetings so that informal relationships develop between JTPA and businesses.

> *The Los Angeles County PIC (which created a customized training program for Pep Boys) regularly conducts workshops with companies to explain the benefits of customized training and develop interest. The PIC also created a brochure for companies that explains customized training and its benefits for companies.*

Employers already involved in the community might be more likely to work with JTPA.

Target employers already involved. Often, the case study companies were involved throughout the community in business associations and roundtables, and many participated in the school-to-work initiative. Companies already involved in the community are more likely to be familiar with

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government training programs and interested in helping the community by hiring JTPA participants.

Market JTPA training by stressing its benefits, including its effects on the bottom line for companies.

Market customized training by emphasizing its bottom line benefits. Some companies will have to be "sold" on the idea of establishing a customized training program and hiring JTPA participants. Offer to put companies in touch with others that have had successful JTPA experiences. Stress these bottom line benefits of training:

- increased productivity,
- increased profits,
- improved employee morale,
- higher retention for entry-level employees,
- fewer accidents, and
- fewer mistakes/scrap parts.

Stress these additional benefits of JTPA customized training:

- Costs of training are offset by JTPA.
- Customization of the training program ensures that companies have input into the curriculum and get workers who will be productive from day one on the job.
- Customized training provides a flexible arrangement; companies can help choose the training provider, suggest selection criteria for training applicants, and provide their own instructors for the training.
- JTPA provides screening and assessment of trainees, resulting in excellent recruits for the firm.
- Supportive services -- such as day care and transportation -- are available to trainees to help them be consistent workers and retain their jobs.
- JTPA has the ability to work with trainees even after employment and provide case

management to reduce absenteeism and turnover.

- JTPA has relationships with training organizations and can put companies in touch with excellent training institutions.

- In addition to job specific skills, JTPA can provide job readiness training and basic skills remediation.

Provide training for a consortium of businesses rather than a single business.

Establish customized training for consortia of businesses. Small and mid-size firms often do not have sufficient numbers of job openings in specific occupations to justify the establishment of a customized program. In addition, small and mid-size firms may lack the working capital and management time often needed to customize the training program (e.g., design of curriculum). JTPA programs should consider establishing programs for consortia of similar businesses. A consortium of manufacturing companies or health care providers, for example, can work together to decide the type of training and develop a curriculum with the JTPA training provider. JTPA then provides one training session for a larger number of trainees who are hired by members of the consortium.

> ***Pacific NW Federal Credit Union participated in a training consortium with four other area credit unions. The PIC recruited participants and selected the training provider. The training provider, Goodwill Industries, developed a curriculum with substantial input from the credit unions. Each credit union committed to hire a certain number of successful trainees. Volunteers at each credit union serve as mentors to trainees.***

Ask for commitments from companies.

Ask for and receive commitments for employment. Companies may be reluctant to commit to hire trainees, but that commitment is essential to the success of customized training programs. Trainees, for example, are more motivated in training if there is a job that depends on their success.

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Agreements between SDAs and companies take time to negotiate.

Carefully negotiate agreements. The agreements between companies, the SDA, and training providers take time to negotiate -- sometimes a year or more. SDAs should not try to rush the negotiation process, but should use it to ensure that there is a commitment to hire and that companies have opportunity to provide input into the training program.

Companies should provide cash or in-kind assistance.

Look to the companies to provide resources. Companies should provide start-up and on-going development assistance. SDAs should ask companies to provide equipment for training laboratories. Often, up-to-date equipment (especially in manufacturing processes) is expensive and can quickly become obsolete. Companies can donate equipment they have upgraded, and trainees will have the opportunity for hands-on experience.

Be flexible and adjust the program where needed.

Build in feedback, and expect to refine the program over time. Once a training program is established, it should not be static, or it will fail to respond to companies' needs, and they will withdraw support. SDAs should ask for feedback from companies regarding the trainees and the curriculum. SDAs may need to refine their selection criteria for trainees. For example, it may become apparent over time that trainees need to have a high school education before they begin training. Likewise, as companies gain more experience with the training program and the trainees who begin work, they may have suggestions for improving the curriculum. The curriculum may also need to be adjusted to respond to new technologies; as technology changes, the curriculum will need to change as well. Companies are in the best position to inform SDAs of technology changes.

Don't overburden companies with paperwork requirements.

Keep paperwork to a minimum. Many companies may be wary of working with JTPA because they believe government programs require burdensome paperwork. By keeping paperwork requirements to a minimum, SDAs can collect needed program data while encouraging companies to participate.

B. Non-JTPA Financed Training

Companies with EBT programs tend to view training as essential and encourage learning by all employees.

The companies highlighted in this study with successful EBT programs have a number of common elements:

- Training is viewed as part of the company's philosophy. Both management and workers are expected to be involved.
- Companies encourage all types of learning, not only firm-specific training. Companies with tuition reimbursement programs allowed employees to take training courses not directly related to their jobs and believed that any education or skills gained were valuable.

Case study companies learned some lessons that should be helpful to companies considering establishing their own training programs. The lessons apply to employee training in general.

Companies should first plan their EBT programs based on company goals.

Plan carefully. The first step in establishing a successful employee training program is to plan for it. Each company should:

- Carefully think about its goals. What does the company want to accomplish with its training program?
- Prioritize its goals, and base training on these priorities. What are the company's priorities? For example, if decreasing accidents is a priority, then health and safety training should be an early focus of the training program.
- Involve management in designing and supporting the training program. How can the company management realize the importance of training and the company's training expenditures?

- Get input from employees and their supervisors on training needs. What do they see as areas that could be enhanced through training? What are the employees' goals? What are their preferences for training methods?

Goodwin House suggested holding employee roundtables to discover training needs, while Lucas Aerospace conducted regular employee training surveys to learn what employees needed.

- Do not become overwhelmed by an overly ambitious plan -- start slowly, perhaps with a single training class, and take it step by step.

Employee input is essential to a successful program.

Include employees in the process and have them "buy-in" to the program. If employees are not invested in the training they will not get as much out of it or contribute as much as they could. If they believe the training is important and benefits both them and the company, they'll be more eager to participate.

- Choose a small group of employees to participate in a training pilot. These initial trainees will later serve as "goodwill ambassadors" for the program. Do not try to train everyone at once.

- Market the program to employees. Tell them that training is necessary and important and that it benefits them (increased knowledge and ability, increased wages) as well as the company.

- If appropriate, consider a management-union collaboration on the training program. Collaboration may give the program added credibility with employees, and union stewards can encourage employees to attend.

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One of the most innovative aspects of Boeing's QTTP program is its partnership between the union (International Association of Machinists and Aerospace Workers or IAM) and company management. QTTP was begun at the request of the union during the 1990 collective bargaining process as a training program specifically for IAM-represented employees. The program is co-directed by representatives of IAM and Boeing, and its staff of 33 is split between union and management representatives. This partnership gives the program added credibility with employees. Union shop stewards often make presentations about the program and its training opportunities to employees; QTTP distributes informational flyers and other materials through the stewards.

- Build training into the performance appraisal process. This type of incentive increases participation and emphasizes the importance of training. Two of the case study companies used participation in training as a prerequisite for some pay increases.

Linkages with outside organizations can provide access to needed training resources.

Establish linkages. Linkages with organizations such as educational institutions and industry associations can provide access to resources to help establish or implement training programs.

- Establish relationships with professional trainers and local community colleges. Community colleges can develop or provide the curriculum, instructors, materials, and classrooms for training courses.

- Establish relationships with professional organizations and industry groups. They often have standardized curricula available for purchase; they can also provide technical assistance on establishing a program or provide trainers for a class.

- Don't reinvent the wheel. Take advantage of educational resources available in the community and learn what courses and outside education activities are worthwhile. Local community colleges and vocational schools often provide

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customized training courses for companies. An added benefit is that using existing training opportunities frees staff time, and the fees for such training may be cost-effective for many companies.

Unisys contracted with a consortium of local colleges to provide its week-long orientation for all new employees. The colleges provided instructors, curriculum, classrooms, and computer labs for computer instruction. The company then used that existing relationship to hire the Director of Quality at a local college to provide its team-based management training.

Companies can maximize their EBT programs with these simple strategies.

Design the program to maximize and encourage learning. Lucas Aerospace and other case study companies had these tips for companies designing a training program:

- Make sure those trained apply their knowledge soon after training. Application of training can be accomplished by interspersing classroom training with actual work and holding classes over several days or weeks instead of in one eight-hour block, for example. On-the-job training -- training that occurs with a supervisor or mentor in which the trainee actually performs the task -- is another example.

- Consider the pros and cons of providing training in-house or at another locale. Good facilities are essential. Provide training at local hotels or conference centers when possible; employees often concentrate better when away from work, and the conference facilities provide all the amenities to make employees feel the training is important: good facilities, audio-visual equipment, and refreshments. Another idea is to hold training at a local college when possible. Colleges add prestige and subliminal positive messages that the training is important and valuable.

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- Know the audience. If employees are not accustomed to sitting for long periods in a classroom, make the first classroom sessions brief. Otherwise, employees will become bored and disinterested.

- Self-esteem development is important for success in training. Some talented and intelligent people have a poor self-concept, which impedes their willingness and ability to learn.

- Choose the right instructors. If possible, observe the instructors in action before they are hired, and if that is not possible, speak with someone who has seen them teach. Always check instructors' references. The wrong instructors -- incompetent trainers or those who speak in academic language not suited to the employees -- can wreck the best planned training program.

- Provide all materials and support materials for the training, especially if the employees are not accustomed to taking classroom notes. By providing three-ring binders with training handouts, companies can ensure that their employees have materials to refer back to after the training.

Creative financing can help companies decrease training costs.

Use creative financing to stretch training dollars. Companies may be reticent to start training programs because of the perceived costs.

- Stretch the training budget by shifting some costs to employees, such as sharing time for training.

- To decrease costs, consider forming a consortium with other companies needing similar training.

- Discuss customized training with the local SDA and ways in which the JTPA system and training vendors can help defray costs of program design and on-going operation.

Evaluation of the program gives companies important information about training outcomes.

Evaluate the training program. By evaluating the program from the beginning, companies can learn which training sessions, instructors, and methods employees like the most and which have the best results for the company. The data collected will allow companies to adjust the program and to know whether the program has an impact on outcomes they are interested in.

- Use employee surveys to assess the program, refine training, and evaluate trainers and curricula. Surveys of particular training sessions should be administered immediately after the session and can be brief questionnaires asking trainees, for example, to rate the instructor, the handouts, and the training overall.

- Use assessments of productivity (such as parts per 100 labor hours or gross sales per employee), lost-time accidents, number of bad parts, and other measures to evaluate the impact of the training program on the company.

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